

Title (en)  
Dynamic pressure gas bearing structure

Title (de)  
Dynamische Gasdrucklagervorrichtung

Title (fr)  
Dispositif de palier dynamique à pression de gaz

Publication  
**EP 0732516 B1 20010919 (EN)**

Application  
**EP 96103797 A 19960311**

Priority  
• JP 5300795 A 19950313  
• JP 3962396 A 19960227

Abstract (en)  
[origin: EP0732516A1] Provided is a dynamic pressure gas bearing structure which is applicable to a high-speed rotation driving part such as a hard disk driver or the like and has high rotational accuracy in high-speed rotation. The dynamic pressure gas bearing structure comprises a shaft body (1) and a bearing body (2). When the shaft body (1) and the bearing body (2) are so arranged that central axes (50) thereof are aligned with each other, a substantially cylindrical gap (3) is defined between the outer peripheral surface of the shaft body (1) and the inner peripheral surface of the bearing body (2). The gap (3) has at least one gap change portion whose thickness is changed with respect to a central angle corresponding to the circumference along the outer peripheral surface of the shaft body (1). The gap change rate  $\alpha$  is at least  $1.0 \times 10^{-4}$  DEG and less than  $10.0 \times 10^{-4}$  DEG. <IMAGE>

IPC 1-7  
**F16C 33/10**

IPC 8 full level  
**F16C 17/02** (2006.01); **F16C 33/10** (2006.01); **G11B 5/52** (2006.01)

CPC (source: EP KR US)  
**F16C 17/028** (2013.01 - EP US); **F16C 32/06** (2013.01 - KR); **F16C 33/1075** (2013.01 - EP US); **F16C 2370/12** (2013.01 - EP US)

Cited by  
EP2998596A4; EP0982507A4; US6428211B1; US9581195B2

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**EP 0732516 A1 19960918**; **EP 0732516 B1 20010919**; DE 69615245 D1 20011025; DE 69615245 T2 20020627; JP 3362593 B2 20030107; JP H08312639 A 19961126; KR 0185739 B1 19990515; KR 960034783 A 19961024; US 5628567 A 19970513

DOCDB simple family (application)  
**EP 96103797 A 19960311**; DE 69615245 T 19960311; JP 3962396 A 19960227; KR 19960006584 A 19960313; US 61328296 A 19960311